

# **International Harmonization of Cooperative Systems Standards and the IntelliDrive<sup>SM</sup> Program**

## **ITS-JPO Standards Program Update**

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# ITS-JPO's Standards Role and Activities

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RITA ITS-JPO supports the development of ITS standards

- ITS community recognizes that standards are essential to enable widespread deployment of interoperable ITS technologies
  - Standards are required to support infrastructure technologies
  - Standards are required to support cooperative systems technologies

How does ITS-JPO support development of standards?






- Develop strategic plans and program roadmaps incorporating stakeholder feedback to help guide future standards developments
- ITS-JPO provides financial support to SDO's and committee members in order to help facilitate their participation in the standards development process
- Requires the use of systems engineering processes to ensure complete and correct standards

What does ITS-JPO not do?

- Does not define the contents of the standards, not prescriptive
- Does not mandate use of standards in the deployment of ITS systems



# USDOT- Sponsored IntelliDrive<sup>SM</sup> Standards

Standards		Publication Date
	J2735	Nov 2009 (v2)
	1609.3 and .4	July 2010 (planned)
	1609.1 and .2	Oct 2010 (planned)
	802.11p	Nov 2010 (planned)
	1609.0 and .11	Dec 2010 (planned)



# International Standards Harmonization

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Why seek harmonization of cooperative systems standards?

- Reduce need for different vehicle hardware/software in different regions
  - Reduce cost
  - Accelerate implementation
- Facilitate cooperation on applications, technical research
  - Avoid duplication of effort
  - Expand knowledge base



# Harmonization Activity to Date

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- USDOT and the European Commission Directorate General for Information Society and Media (DGINFSO) entered into a bilateral Implementing Arrangement in January 2009
- In November 2009 the USDOT and DGINFSO signed the EU-US Joint Declaration of Intent on Research Cooperation which included, among others, a goal to:  
*Support, wherever possible, global open standards in order to ensure interoperability of cooperative systems worldwide and to preclude the development and adoption of redundant standards.*
- Joint Intelligent Transportation Systems (ITS) Technical Task Force was established under the leadership of USDOT and DGINFSO
- The Technical Task Force created a number of working groups, including the ITS Standards Working Group
- The ITS Standards Working Group was initiated with a guiding policy directive to explore opportunities for harmonizing ITS standards internationally.



# The Agreement

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## EU-US Joint Declaration of Intent (13<sup>th</sup> November 2009)

Globally harmonized standards are essential to support and accelerate the deployment and adoption of Cooperative Systems. The parties strongly support development of global open standards which ensure interoperability through appropriate actions including, but not limited to, coordinating the activities of the standardization organizations. In particular, the parties intend to make efforts to preclude the development and adoption of redundant standards. The adoption of multiple standards within a given area of interest should be limited to those cases where there are demonstrated technical needs, such as differing frequency spectrum allocations, and legal requirements, such as privacy protection laws. The parties welcome the participation of other countries and regions, particularly those of the Asia Pacific region, in the development of global open, harmonized standards for Cooperative Systems.



# ITS Standards Working Group

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ITS Standards working group within the EC-US Bilateral ITS Joint Task Force

- Wolfgang Hoefs and Steve Sill as Co-Chairs

## Mission

*“To identify opportunities for harmonization of international ITS cooperative system standards where such harmonization is determined to be an effective and practical means to providing enhanced benefits to the public while preserving objectives and requirements of local markets.”*



**The Working Group  
welcomes additional  
international participation**



# Harmonization Opportunity Assessment Plan (HOAP)

## Joint leadership

- US ITS-JPO, Steve Sill
- European Commission, Wolfgang Hoefs

## The first cooperative effort: HOAP

### Multistage reviews of existing and emerging standards

- High Level Assessment (HLA) with recommendations for detailed assessment
- Detailed Level Assessment (DLA)
- Harmonization Opportunity Identification (HOI)

## Critical role of Standards Development Organizations (SDOs)

- Regional SDOs will need to work in coordination with their local governments
- Technical expertise and knowledge base
- Modification of standards, if required

## Working Group Progress

Working Group  
Established Jan 2010

- Finalizing HOAP
- Exploring Document Sharing

Next Working Group  
Meeting June 2010





# Harmonization Opportunity Assessment Plan (HOAP)

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## **Track 1: Assessment and Recommendations**

- High Level Assessment (HLA)
- Detailed Level Assessment (DLA)
- Harmonization Opportunity Identification (HOI)

## **Track 2: Detailed Agreement for Harmonization Procedures**

- Detailed Agreement between EC and USDOT

## **Track 3: Gap/Overlap Analysis for Future Standards**

- ITS cooperative systems standards gap analysis



# Methodology and Issues

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- Harmonization Opportunity Assessment Plan will incorporate appropriate contractors and Standards Development Organizations (SDOs)
  - HLA: conducted by working group members and support contractor
  - DLA: conducted by specific contractual agreement
- Large number of standards being developed that could fall into HLA
  - The initial plan will need to focus on specific areas or standards groups of highest priority
  - Standards list to be narrowed down to focus initial assessment
  - Many SDOs in addition to those working on behalf of USDOT:
    - European Telecommunications Standards Institute (ETSI)
    - European Committee for Standardization (CEN)
    - International Organization for Standardization (ISO)
    - Others....
- Lack of access to some draft standards under development
- Need to consider windows of opportunity to influence standards development/harmonization
  - Standards are in different phases of development
  - Revision cycles driven by test results may create opportunities



# Near-Term ITS-JPO Standards Program Activity

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- Continue to support cooperative systems IntelliDrive<sup>SM</sup> standards development
- Continued update/maintenance support of infrastructure standards
- Renewed standards testing program
  - Infrastructure and IntelliDrive<sup>SM</sup>
- New contracts for future Standards Development Organization work
  - Principles of consensus, openness will continue
  - Mandated systems engineering processes for all future work



# Near-Term IntelliDrive<sup>SM</sup> Activity

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- ITS Strategic Research Plan now available
  - Five year research plan covering 2010-2014
  - [http://www.its.dot.gov/strat\\_plan/index.htm](http://www.its.dot.gov/strat_plan/index.htm)
- Strategic Plan for ITS Standards is under development
- IntelliDrive<sup>SM</sup> Systems Engineering
  - Revisit system architecture
    - Broaden beyond DSRC only
    - Consider International developments
- IntelliDrive<sup>SM</sup> Test Bed in Michigan
  - Upgrade to stable operational state
  - Make equitably available to all for research
  - To be used for standards testing

**USDOT is committed to  
the development of  
standards for cooperative  
systems**



# For More Information...

Please visit the following websites:



[www.its.dot.gov](http://www.its.dot.gov)



[www.intellidriveusa.org](http://www.intellidriveusa.org)

Or follow us on:



[http://www.its.dot.gov/rss\\_feed.htm](http://www.its.dot.gov/rss_feed.htm)



<http://www.its.dot.gov/exit/twitter.htm>

